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ON IRREDUCIBLE HERNIA.

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A CASE occurring in my wards at the City Hospital, exemplifying the difference between irreducible and strangulated hernia, and the advantages which result from a little patient waiting before proceeding to a cutting operation, furnished the text for this little essay. It also exhibited the phenomena of inflamed hernia and its proper treatment. Abernethy held an amputation, and by consequence any cutting operation, to be the opprobrium of surgery. Velpeau taught that a scratch was a gate open to death. Hence, he who by excellence in diagnosis has been able to avoid a recourse to the knife is entitled to a far greater meed of glory than he who has expertly performed a needless operation. Perhaps in no department of surgery is this idea to be more constantly kept in remembrance than in that which relates to hernia. The common error is to confound irreducibility with strangulation; inflammation of a hernia, as contradistinguished from strangulation, is often totally ignored. So much has been said and so well said about "delay in operating," that I fear the too prevalent idea regarding hernia is, that if taxis together with ether does not succeed, an operation must follow, without waiting to see if the hernia be really strangulated or not, or if opium, ice, poultices, leeches, a raised position of the pelvis, persistently followed, would not do a great deal better; or whether, if some operation must be done, the pneumatic aspirator, or even the finger in some cases, so as to forcibly dilate the constriction, would not answer as well as the knife. A surgeon who is skilled in diagnosis will rarely find a case of hernia to operate on. Such a surgeon may be called timid or over-cautious, but he has often the satisfaction of knowing that surgery has suffered no injury at his hands. Nothing should or can cause a true surgeon more self-condemnation than to feel that he has by a needless or ill-timed operation increased the chances of death. Dr. Gross has recently uttered some excellent words regarding haste to operate for hernia. Carsten Holthouse, whose excellent work on hernia should be in every surgeon's library, is full of instruction on this point. I like Mr. Holthouse's division of hernia into "irreducible,"

temporarily irreducible, and strangulated; although it may be said that unless there be great adhesions no hernia can be called absolutely irreducible. I also confess that I have a greater liking for the word "in carcerated" than for "temporarily irreducible."

Hear Sir Charles Bell: "The hernia is retained in the sac by incarceration, that is, by its distention; but there is very little or no stricture of its blood-vessels. Strangulation is that state where not only is the alimentary matter in the canal obstructed, but the blood in the vessels, and there is momentary danger of mortification." This temporary irreducibility, it must be remembered, is not an affair to be measured by hours, but by days and weeks. It may even be accompanied by vomiting and pain, but these do not compel us to operation, unless they be constant and urgent. If the hernia be tender and red, this is rather an argument against, than for operation, provided strangulation is not absolutely present. Conceive, if you can, how dangerous for the patient would be the laying open of a hernial sac when the hernia was merely incarcerated and inflamed. Who among us cannot recall unnecessary operations for hernia? Even the great Liston himself operated for what he thought hernia, although his operation was indefensible, for no symptom of strangulation was present, and he found neither intestine nor omentum in the sac.

Mr. Holthouse gives the following case. Most surgeons who once were young, and now are old, can recall similar ones that have happened, perhaps to themselves. It is a pity that old heads do not grow on young shoulders.

"A laboring man, sixty years of age, the subject of chronic bronchitis, and who had had for six years a double inguinal reducible hernia, awoke one morning in some pain, from the right hernia having descended during the night and become irreducible. The parish doctor, having been sent for, tried the taxis for nearly an hour, but failed to return the protrusion. The same afternoon the patient was seen by a young surgeon, who had him placed in a warm bath, and again attempted reduction, but with no better success. After that an enema of warm water and castor oil was administered, and ice applied to the tumor; but these means also failing, and the young surgeon, who had now taken the principal charge of the case, becoming alarmed, a young hospital surgeon was sent for, who, notwithstanding there were no symptoms of strangulation, cut down upon the tumor and returned the bowel. Six days after the operation, both herniæ having descended, I was consulted as to the propriety of reopening the wound, in order again to return the protrusion, and with some difficulty succeeded in convincing this enterprising young surgeon that, as there was no strangulation, another operation might be dispensed with."

The treatment of hernia, whether it belongs to that form termed per-

manently irreducible or to that called temporarily irreducible, seems to be either not generally understood, or not enforced to the degree and with the persistence that experience has shown to be often followed by success. Lawrence, in his work on Hernia, says,¹ "Surgical observers have recorded several cases in which large, old, and irreducible ruptures, in consequence of long confinement in bed, have returned completely into the cavity of the abdomen." It has been proposed to imitate this operation of nature by art, and the attempt has sometimes been successful. By this plan, and keeping the patient on low diet, together with venesection, calomel, purgatives, and clysters, Armand accomplished the replacement of a vast scrotal rupture which had existed since infancy, and succeeded in numerous herniæ which had resisted every other method. A treatment of a month's duration enabled Mr. Earle to return a hernia which had existed two years. Mr. Lawrence himself had a successful case of this kind. It is to be regretted that this plan for the reduction of herniæ commonly termed irreducible is not more commonly known and practiced.

Of the successful treatment of temporarily irreducible herniæ accompanied with inflammation, a case given by Mr. Holthouse is an excellent illustration. R. B., aged thirty, a healthy, fresh-colored man, was admitted into the Westminster Hospital on the 19th of June, 1865, with an oblique inguinal hernia of the left side, which he had had for seven years, and for which he had worn a truss till within three months; he then left it off, and the hernia did not descend till two days before admission, when it passed into the upper part of the scrotum, and could not be returned. There were no other symptoms. The taxis having failed to reduce the rupture, the patient was confined to bed, put on low diet, and ice applied to the tumor; this treatment, varied by leeches and purgatives, succeeded so well that on the 19th of July he was discharged with no trace of the hernia remaining. A thickened sac could be felt.

The case alluded to at the commencement of this paper occurred at the City Hospital, during my term of service in 1871. James R. Keith, aged fifty-seven, admitted to the hospital on the medical side in the early part of the month of October, 1871, was transferred to the surgical wards on the 19th for treatment of a hernia, for which he had for a long time worn a truss, but which had descended five days before and could not be returned by taxis. It had since increased in size, become red and painful, tense and tympanitic, and was of the size of a large fist. There was no vomiting, and the bowels moved by an injection. He was ordered to bed; the scrotum to be elevated, ice-bag over tumor, which was defended from contact with the ice-bag by a fold of flannel; lower end of bedstead to be raised three or four inches from floor by

¹ Page 134.

lifts of wood. A quarter of a grain of morphia at 10 A. M., to be repeated at 8 and 10 P. M. Low diet.

October 20. Tumor apparently a little diminished in size. Inflammation lessened. Continue treatment.

October 21. No change in tumor.

October 24. Hernia more tender. Patient irritable, tongue brown and dry; pulse irregular; skin hot.

October 25. Hernia reduced in size one half. General condition improved. Use of ice-bag continued.

October 26. Hernia smaller than yesterday.

October 30. But little of the hernia remains.

November 3. All that remains is a hard, thickened mass about the inguinal ring.

November 10. Condition about the same, with some diminution in the swelling.

November 17. Tumor diminishing in size slowly and softening. A Phelps's truss was carefully prepared and applied by Mr. Edmund Daniels.

November 18. Laxative, on account of costiveness.

November 20. Discharged, well.

Temporarily irreducible or incarcerated hernia may be attended by pain, vomiting, and impossibility of voiding feces. It may be unreturnable by taxis, and yet an operation not be demanded; nay, an operation may be highly improper, unless all these be persistent. Dr. Gross thinks that the majority of cases called strangulated hernia do not demand immediate operation, but may be successfully treated without recourse to the knife. It is the tyro who rushes to herniotomy, who applies taxis timidly, or continues it too long. Dr. Gross, when called to operate, often contents himself with the application of the ice-bag, carefully kept from immediate contact with the skin by a double fold of flannel (an important precaution), a raised position of the lower part of the body, and a dose of chloral followed by morphine; and he frequently finds the hernia returned at his next visit. Armed with opium alone, the general practitioner may pass through a life-time without seeing a case of hernia, especially of inguinal hernia, demanding operation by the knife. Mr. Bransby Cooper says, "I have never recommended opium by choice as a substitute for the operation, but in four or five cases where the patients refused to submit to it, I have employed it with perfect success. I first learned this practice from the late Mr. Bush, of Frome, in Somersetshire, who informed me that although at one time of his life he had had to perform the operation for hernia several times in the course of every year, yet after he had adopted the opium treatment he rarely had occasion to resort to the knife. In July, 1838, I admitted a man aged sixty-four into Guy's Hospital. He was the subject

of strangulated inguinal hernia of five days' standing. He suffered from constant vomiting and insuperable constipation. I attempted the taxis, but could not succeed, and proposed an immediate operation. To this the patient would not consent, so I ordered him three grains of opium. In about four hours the sickness was relieved, and some flatus passed per anum, but the constipation still remained. At twelve o'clock of the same night my dresser, Mr. Coleman, repeated the dose of opium. The patient passed a very quiet night, and in the morning the vomiting had ceased, and a copious motion was passed, during which the hernia returned into the abdomen." Mr. Cooper gives four similar cases, in all of which the operation by the knife had been proposed and refused, but all recovered under opium, including one case of femoral hernia, the least likely to have returned without operation. Mr. Holthouse gives many cases of such successful treatment by rest, ice, and opium, where he had been called upon to operate.

It is to be remembered that a strangulated hernia is not necessarily fatal when left to itself. The following story, told by Jean Louis Petit, made a profound impression on my mind when I read it at a very early part of my professional life: "I was going by night to La Ferté-sous-Jouarre, when the postilion lost his way. Perceiving a light in a neighboring hamlet, I went to the house of a peasant to inquire the road, and found his wife on the point of death from an intestinal hernia which had burst in the sac, and had given issue to a large quantity of fecal matter. Thus at least I was informed by the attendant, who said that the swelling had increased in size all at once, and that they had heard at the same time a noise as of wind and water. Being much pressed for time I contented myself with opening the sac, and the bed was inundated with fecal matter, the discharge being at least eight times as much as the tumor could have possibly contained. The husband recompensed my services by conducting the postilion to Jouarre, and I promised to see his wife on my return next day, but I was detained twenty days. The poor man, impatient at my delay, came on the fifth day to inform me that his wife continued well and felt no pain, but that all her stools were discharged through the wound I had made, and that he knew not with what balm to dress her. I recommended to only keep the wound clean with cloths dipped in a decoction of herbs. In six days he came again to La Ferté to say that his wife had been to stool the natural way, that the discharge through the wound was very slight, but that she felt excessively hungry. On the twenty-second day I set off for Paris, and found the wound very nearly healed; the opening in the intestine had in all probability entirely closed, as no feces had passed through it for five days. After the expiration of a month, I saw her again in Paris in a state of perfect health."

(To be concluded.)

A CASE OF GENERAL PARALYSIS OF THE INSANE.¹

BY CHARLES F. FOLSON, M. D.

JANUARY 15, 1872. Mr. —, aged forty-eight, married, and by occupation a wholesale cooper, is a tall, robust, vigorous man, in the prime of life, and at a glance seeming in perfect physical health. There is no known hereditary tendency to disease in his case. The patient began life in a small way, and his business gradually increased so as to tax his powers to the utmost, as he was a man of little education and of quite ordinary ability. He was ambitious to make money and to live in a style corresponding to some wealth, and his wife sympathized with him in this ambition. To sustain the tax upon his powers, he had for several years made a pretty generous use of alcohol and tobacco. He indulged his sexual appetite quite frequently, and continued to work very hard mentally and physically. For the past two months he has been constantly under the influence of alcohol, more or less, and his sexual instincts have become very strong. He has had lately considerable domestic trouble and anxiety. Six weeks ago, it was noticed that there was an alteration in his manner; he became careless, negligent, inattentive to his business, irritable, cross, unreasonable, and more than usually intolerant of restraint and contradiction. He soon began to make foolish bargains, and would buy at absurd prices anything that he saw and to which he took a passing fancy. He thought that he possessed great wealth, and lost in some degree his sense of the ownership of property and of truth. His memory was not remarkably impaired, although he would pass rapidly from one subject to another, forgetting things which he had commenced and not finished. A few days ago, he said that he had bought the Fitchburg Railroad for two and a half million dollars. At present his appetite is ravenous. The bodily functions are well performed. No motor symptoms have been noticed. He sleeps well and has never had vertigo.

On entrance to the asylum he is exhilarated, his pulse is somewhat accelerated: he is very uneasy, impatient of restraint, and swears he is not insane. Slight convulsive movements of the muscles of articulation on speaking rapidly or trying to pronounce long words. Pupils contracted, responding unequally. His sense of *meum et tuum* is quite gone; he does not hesitate to threaten violence to any who oppose his grand schemes, and he comes to the hospital because his neighbors began to be afraid of him, and thought best to place him under restraint.

At the asylum he ate greedily, slept well, and at times talked quite rationally for a while; but if any of the subjects of his delusions were mentioned he immediately branched off to the most extravagant statements of his wealth and power. He was "going to build a city of his

¹ Read before the Boston Society for Medical Observation, December 7, 1874.

native town — a ripper it is to be — with gold and diamonds and plenty of women." He was quite obscene in his remarks.

February 20. Performed wonderful feats of strength, such as lifting heavy doors. He was quite excited and violent; walking uneasily up and down the gallery most of the day. His speech was slightly indistinct. He knocked down two attendants, and escaped after jumping over a high fence.

March 10. Contrary to directions, the gallery was left with only one attendant, when Mr. —, assisted by another patient, attacked him and tried to take away his keys. It is noticed that he is losing flesh; he threatens to kill officers and others who interfere with his plans.

March 17. The patient saw his son, and, instead of complaining, told him what a good time he was having, with plenty of wine, tobacco, etc.; but finally he made the young man promise to take him home soon, in order that he might superintend his city and his railroad.

July 11. Excitement generally subsiding. Patient is losing flesh, although eating enormously; he reads or plays cards most of the time, and is quiet. He thinks he is a great poet; "can make a million dollars a day" writing or reciting; has "been offered millions to read poems to the crowned heads of Europe," and some of them have "offered him their daughters in marriage." To keep him quiet, he is furnished with plenty of paper, which he covers with doggerel rhymes, writing very rapidly and composing as he goes, about glittering angels, gold, diamonds, and so forth. His handwriting is unsteady, and tremulous; he omits letters and words, and writes incorrectly words of similar sound. He puts dashes, commas, and other marks in the wrong places, and makes his sentences involved and incoherent. His upper lip is tremulous and less mobile; his speech is thick and is especially at fault in pronouncing *r*'s, *s*'s, and labials. Gait tripping, drawing, and shuffling along on the balls of his feet. Pupils unequal. He is violent to those who contradict him, and has two attendants at hand all the time.

He thinks he is a great engineer, "owns so many railroads that he can afford to give some away." He is quite violent and dangerous, but does not attempt to attack any one but the officers; he can generally be turned to good nature by interested inquiries as to his cities, railroads, or imperial brides, etc. When in a frenzy of fury, a cool question as to what king is to hear his poems first will quiet him so that he will talk happily as long as listened to. He has had a slight attack of erysipelas of the scalp, during which his ideas flowed more rapidly and brilliantly. His memory is more impaired; he runs from one subject to another, forgetting anything unfinished. If the subjects of his delusions are avoided, he is capable of talking rationally; when told that a guardian had been appointed to take care of his property, he laughed and considered it a good joke. No hallucinations of sight and hearing.

August. During this month the patient was excited and furious only occasionally. He now spends most of his time writing, singing, and playing cards. He threatens the physicians, swears that he will kill them, and that the law will not hold him responsible, as they say that he is insane. He offers millions of dollars to the officers, attendants, and patients to let him out, and writes letters to General Grant and other high officials, making the same offer. He sometimes asks the doctors when he will be well, and pretends to concur in their opinions as to his insanity; bears a great deal that is annoying from the other patients, because, as he says, they are insane and do not know any better.

September. Some of his friends saw him, and he tried so hard to appear sane (they not happening to hit the subjects of his delusions in conversation) that they promised to take him away. As they did not do this, however, he became violent again, trying to follow the officers into rooms and corners so as to attack them. Motor disturbances are now very marked.

October. He asks the officers why they think him insane. Upon being told because no sane man thinks he owns all the railroads in the United States, can marry princesses, or build fine cities, his reply is, "Oh! you don't suppose I am such a damned fool as to believe that, do you? I got over those foolish notions long ago." On being asked immediately afterwards what he has written recently, he repeats rapidly and fluently some of his verses, stopping occasionally to say, "Is n't that glorious? By Jove! it's a shame for a man with abilities like mine to be kept here! Why, I can make a million dollars every day of my life, and a million more every evening, reciting my poems in Europe." At times he manifests a great deal of emotion. His paralytic symptoms are becoming more and more marked, and his mind is growing feebler.

November. An ophthalmoscopic examination was made by Dr. O. F. Wadsworth, who found nothing abnormal. The patient curses and swears at the officers, threatens to kill them, says they are in conspiracy with his wife to get his millions. He followed one of the officers into another patient's room, seized him by the throat, and threatened to kill him unless he gave up his keys.

January, 1873. The patient's excitement has nearly subsided; his hand is tremulous, articulation markedly indistinct; he has lost strength, is generally happy, and is gaining flesh. He is as full of delusions as ever, sings more about his "glittering angels hovering around the throne;" bears contradiction, and is easily argued, for the moment, out of his delusions. The muscles of the face have lost their expression, and his countenance indicates only the vacant *bien-être* so characteristic of the disease. He grows rapidly weaker, mentally and physically, but is apparently very well nourished. He walks pretty constantly, with his legs wide apart and with a shuffling gait, keeps his balance readily on

a smooth floor if walking straight ahead, but on turning around, or walking over an uneven surface, and in going up or down stairs, he stumbles and totters. He stands steadily with his eyes closed. His hands and arms are losing strength, and especially as regards the nerves of muscular sense. There is a constant tremor of the lips while talking. He is happy and contented much of the time; he says little about his delusions unless his attention is called to them. Sometimes, when writing his poems, he says he is doing it for no especial object.

March. Generally free from excitement, weaker mentally and physically, walks less, lies about on the floor, slovenly in his habits, obscene in his talk, as easily managed as a child unless crossed very decidedly. He is passive and indifferent, and is losing flesh again slightly. There is diminished sensibility of skin.

He was removed to a State asylum with forty patients in his ward.

July. Quiet, happy, causing no trouble, contented, likes seeing so much society. Failing rapidly. The grasp of the hand is unsteady and less strong. His gait is unsteady, but he still walks a considerable. He still thinks he is a great poet and can make millions, but expresses no desire to get away, and apparently does not want to do so.

June, 1874. From the last date, the patient gradually grew feebler and more demented, and died after convulsions.

The morbid appearances always found in a greater or less degree in general paralysis of the insane are atrophy and diminished specific gravity of the brain, especially of the anterior lobes. In one case attended with melancholic symptoms, Dr. R. H. Fitz found the atrophy especially marked in both middle lobes. Sometimes one half is more atrophied than the other (with protrusion of the tongue to one side, during life). The white substance is harder than usual, the cortical, especially its outer layer, softer. There are pachymeningitis, simple and hæmorrhagic, hæmatoma of the dura mater, thickening and opacity of the pia mater, with adhesions at the apex of the brain, or with the meshes filled with serum. The same conditions are found in the membranes of the cord, with sclerosis of the posterior columns. This sclerosis is often so marked that the nerve-cells are scarcely to be seen.

Myelitis, ending in sclerosis, is quite general where the gait is that of *tabes dorsalis*, with inability to stand steady with closed eyes.

In this case, the change in the character and the affective sentiments, followed very soon by convulsive movements of the muscles of the body, which were noticeable only in those requiring greater accuracy of action (as for instance in articulation), the grand delusions, the impairment of memory, the loss of self-control, and the contraction of the pupils with unequal sensitiveness to the stimulus of light, made the diagnosis positive in the early stage of the disease. The causes, too, were the common ones: mental and physical exhaustion with anxiety,

aided probably by licentious habits of living. The disease is also one of the prime of life and the vigor of manhood. Various statistics in different places make man's liability to it from three to ten times as great as woman's; and its average duration, as in this case, is not far from three years; although with home care and under favorable circumstances, patients of the upper classes not seldom live five or six years.

In most cases, the psychical symptoms are the first to be observed; but motor symptoms may be the first, and may be so rapidly developed as to simulate drunkenness. Exceptionally, the first ataxic symptoms are in the muscles of the eye; and Professor Leidesdorf, of Vienna, has observed spinal symptoms before either cerebral or mental. In the early stages of the disease, the ataxic symptoms are not due to paralysis; but it is not yet possible to say precisely when the paralysis does begin. As it advances, the muscles become for a while better nourished, — a fact difficult to explain, unless we adopt Professor Westphal's theory, that the different ganglionic cells of any particular part of the cord may have different functions, some serving for the nutrition, others for the motor power of the muscles. By the ophthalmoscope, there is some hyperæmia of the retina early; and later, atrophy of the disk, in most cases; but this test is of no diagnostic value. Electro-muscular contractility is usually not diminished until quite late. The temperature is somewhat elevated, and is from one half a degree to two degrees higher at night than in the morning. The higher the morning temperature and the greater the rise towards night, the more rapid is the progress of the disease. There are seldom hallucinations of sight and hearing. At some stage convulsions, apoplecticiform, epileptiform, or of the character of petit mal or simple vertigo, are pretty sure to appear. They are few and slight, or frequent and severe, lasting even up to the instant of death. After them, the temperature rises, the cutaneous sensibility is increased (at times to extreme hyperæsthesia), and the intellect becomes more dull, while the muscles grow feebler; occasionally there is effusion.

Melancholia (either slight or suicidal) is generally observed at some time, and it may be the prevailing mental condition; or a patient may alternate between exhilaration and depression. The grand delusions are found in the majority of cases. When present, they are less fixed and sooner forgotten than in other forms of chronic insanity. In a certain form of the disease, which is the common one among prostitutes but rare in the better classes, there are absolutely no delusions and no excitement, — simply a progressive failure of intellect and gradually increasing paralysis. Such cases find their way often to hospitals for paralytics, instead of to asylums for the insane. When the attack of the disease resembles the outburst of acute mania, diagnosis must usually be reserved for a while.

In rapid cases, a fatal result comes within six months. In prolonged cases, there may be remissions of apparent health (with diminished mental and physical strength), lasting from a couple of weeks to nearly a couple of years the total duration of the disease in a few extremely rare cases having been even ten years.

Hæmatomata often appear on the ears, arms, ribs, etc., and are without much doubt of traumatic origin. They are most frequent on the ears, which are exposed to hard pillows, and to pressure in the act of forcible feeding, etc., etc.

Late in the progress of the disease, the patient becomes feeble, must be fed, chokes easily, by taste and smell cannot distinguish wine from water, the delusions disappear, the mind becomes a blank, and there is no idea of even primary instincts. Finally, bed-ridden, unable to move his legs, with bed-sores, defiling himself with his own filth, the patient *invariably dies*, unless his life has fortunately been cut short by inter-current disease or accident, or during convulsions.

RECENT PROGRESS IN THE TREATMENT OF CHILDREN'S DISEASES.¹

BY D. H. HAYDEN, M. D.

NIGHT TERRORS OF CHILDREN.

THERE exists considerable difference of opinion as to the nature of this complaint, due in a great measure to the want of personal observation and study of the symptoms by physicians, who rely for their knowledge upon the descriptions of parents and nurses. Professor Steiner has recently contributed to the literature of the subject a valuable paper² of which the following is a summary.

As an illustration of the manner in which the disease manifests itself, the writer reports a case in full. With the exception of previous attacks of scrofulous ophthalmia and of an occasional nasal catarrh, the patient, a young girl five years old, was of healthy constitution, and during the whole time suffered in no way from disturbances of digestion. The paroxysms occurred at irregular intervals, varying from four days to eight weeks; and at the time of writing, the trouble had already lasted two years. On one occasion there were two paroxysms in the same night; but the last one was shorter and less severe. The duration of the paroxysms was from twenty to thirty minutes. After entirely waking up from the attack, the child was always oblivious of what had occurred.

¹ Concluded from page 129.

² *Jahrbuch für Kinderheilkunde*, N. F., December 3, 1874.

With regard to the nature of the disease, the writer considers it as the expression of a cerebral irritation, making its appearance under the form of a frightful dream, as a rule during the first sleep, in which the objects inspiring fear (dogs, cats, black men, ghosts, etc.) work so vividly upon the children that they rise out of their sleep, cry, and scream, without, however, being perfectly awake; so that this condition strikingly resembles a transitory mania with hallucinations of a terror-producing nature.

Is the cause of this transitory irritation of the brain primary and idiopathic, or of reflex origin? According to the writer's experience, which has been large, the children thus affected have never been healthy children, but are generally delicate and anæmic, carrying traces of rachitis or signs of scrofula. They often show, in addition to the attacks, symptoms of great nervous excitability and timidity. For instance, in one case cited, a little girl four years old was always very much frightened on waking up at night in a dark room; the mother of this patient, a very nervous woman, had also the same dread.

In the writer's own cases the cause of the paroxysms could not be assigned to gastric disturbances, worms, late or immoderate eating, or dentition, as none of these conditions were present. In a large proportion of the children digestion was perfectly normal and the bowels were regular, the appetite on the days of the paroxysms being as good as during the intervals; most of the children were between three and six years of age, so that dentition could be excluded as a cause; and in no single instance were worms present, by which to explain the occurrence of the paroxysms.

The author feels compelled therefore to look for the cause of these attacks in an *idiopathic* irritation of the brain, taking root in children who are of unhealthy constitution and who suffer from deficient and abnormal nutrition. These views have been strengthened by the observation that, when gastric disturbances and diarrhoea made their appearance, the paroxysms often disappeared entirely.

It is not denied that, when a predisposition exists, certain exciting causes may exercise a great influence upon the number and frequency of the paroxysms; but we must look upon the disturbances of nutrition in the brain as the principal cause of the trouble. Among these exciting causes are to be especially classed bad mental training, telling of ghost-stories before going to bed, sleeping in a dark room, all of which are calculated to heat and excite the vivid imagination of children who without this are naturally timid and easily excitable.

Night terrors are often a symptom of transitory character and of but little significance, a disturbance disappearing entirely with proper treatment; in some cases, however, especially where the paroxysms occur with great frequency and violence, they must be looked upon as the early forerunner of some serious disease of the brain.

The treatment based upon the writer's views as to the nature of the disease consists in attention to the general health and nutrition, and to proper mental and physical training.

The author expresses a hope that his professional colleagues will contribute their experience with regard to the disease in question.

DIPHTHERIA AND SCARLATINA.

During an epidemic of diphtheria in the spring of the present year, Dr. G. Mayer, of Aix-la-Chapelle, treated sixty cases with the continuous use of ice and ice-water.¹ From most remedies recommended as specific, the author had previously seen little if any result. Of all internal remedies, chlorate of potash in large and frequently repeated doses appeared to be the most effective, prescribed as follows for a child five years old:—

Potassæ chloratis	8 parts.
Aquæ destillatæ	225 parts.
Syrupi rubi idæi	25 parts.

Dose, one dessert-spoonful every hour, day and night.

He recommends, however, as by far the surest remedy, in a large majority of cases decidedly life-saving, the continuous use of ice internally, day and night. Of the sixty cases thus treated, only one died, a boy five years old, the disease having extended to the larynx very soon after its commencement. Tracheotomy prolonged life four days without saving it, the operation, during this epidemic, when performed, being followed by good results in only a small percentage of the cases.

In the above cases small pieces of ice were placed in the mouth and allowed to melt, and the operation was repeated uninterruptedly day and night for the first two or three days, in the worst cases for a longer time; also as often as possible the patient was given ice-water to drink in greater or less amount. Even with infants eight or ten months old, it is easy to administer ice-water in teaspoonful doses, and the author saw, in the case of a child nine months old, where the mother repeated this operation every two minutes during the whole of the first night, on the second day a decided diminution of the fever and restriction of the local symptoms. The drinking of ice-water has a more decided action than the swallowing of ice in cooling the pharynx. The children generally make great resistance to drinking so frequently, especially during the night, yet by sufficient perseverance on the part of the attendant, it can be carried out regularly and continuously for the first two days. The drink can be made more palatable by the addition of sugar, or of raspberry or lemon syrup; in some cases also by adding red wine. The ice should be pure, and when such cannot be obtained the vessel containing the water should be placed in a mixture of salt and ice and thus lowered to the proper temperature. When

¹ *Jahrbuch für Kinderheilkunde*, N. F., vii Jahrgang; 4 Heft.

there was much swelling of the glands of the neck, ice-bags were applied in the form of cravats, though the occasions requiring this were rare. It was not uncommon with the above treatment to see decided improvement in the local appearances on the second day, and in bad cases the fever did not last longer than from five to seven days: whereas, by other methods of treatment, especially with cauterizations, the course of the disease was often slow, dragging on for a long time. When improvement begins, generally after two or three days, the child may be allowed to rest at night, but ice should then be given whenever he wakes up. The great advantage of this treatment consists in its preventing the extension of the diphtheritic inflammation especially into the larynx, in the rapid spontaneous loosening of the already formed membrane, in the rapid diminution of fever, and in the prevention of blood poisoning. Cauterizations are condemned as increasing the inflammatory swelling of the mucous membrane, endangering extension into the larynx, and, by opening blood-vessels, favoring blood-poisoning. The author does not claim that this treatment is original with him, but thinks that hitherto its advantages have not been sufficiently emphasized and proclaimed.

There was a still greater need of the use of heat-extracting methods of treatment during an epidemic of scarlatina, which had prevailed in Aix-la Chapelle since the summer of 1873, and which was not yet over at the time of writing this article. The epidemic was not a malignant one, the disposition to sequela was small, and cases of extreme malignancy such as were common during the epidemic of 1864, when death ensued in the first stages with symptoms of coma and convulsions, and a temperature of 41° C., were very rare. Of forty-nine cases treated, only three had swelling of the face, and moderate albuminuria (catarrhal nephritis) which passed rapidly away without any further bad results. Baths of cool water were used in eight cases; of these, one died and the others recovered. Of the seven that recovered, œdema of the face made its appearance in one, a young girl five years old, which rapidly disappeared; in a girl two years old there was an otitis externa and adenitis submaxillaris which suppurred; there remained at the time of writing, two months afterwards, an otorrhœa, which was gradually diminishing. Baths were used generally when the temperature in the axilla reached 40° C., especially if at the same time there was violent delirium, or if a tendency to coma or convulsions showed itself. When the baths were once begun, the temperature was taken every three or four hours during the day, and a bath was given as often as it reached 39.5° or even 39° C. These baths were given at 27° , gradually cooled to 22° or 21° R., and, where the temperature was very high, to 18° R. Their duration was ten minutes. From this treatment the author saw great benefit. The subjective symptoms of the patient were much alleviated,

and the lowering effect upon the temperature lasted several hours. Inunction of lard was as a rule made daily, with great relief to the itching of the skin. Ice-bags were kept continuously applied the first few days, rendering good assistance. Ice and ice-water, in accordance with the method already described, and also chlorate of potash for several days, were used in all cases, in those treated with baths as well as in those less sick, as nearly all showed more or less diphtheritis faucium. Otherwise, except in a few instances, where on account of the continuous high temperature quinine was administered in large doses at evening, very little medicine was given. In urgent cases where quinine is indicated and the patient cannot swallow, it can be given subcutaneously; under such conditions the author recommends trying camphor injected hourly. In one instance of lung paralysis, he saw the best results follow the subcutaneous injection of benzoës. The temperature of the room when possible was kept regulated at 10°–12° R., during the first days; later, when the fever diminished, at 14°–15° R.

THE WET SHEET IN SCARLATINA.

Dr. Taylor¹ thinks that the above "simple, powerful, and ready-at-hand auxiliary" in the treatment of scarlatina is not properly appreciated by the profession. An experience of forty years has served to assure him "that this plain or medicated vapor-giving envelope affords the best *external means* for eliminating scarlatinal poison and preventing destructive sequelæ." It promptly suppresses pyrexial heat and itching; produces more or less continuous sleep, with a soft, secretive skin; and enables the digestive organs to accomplish the great desideratum in scarlatina, namely, absorption of highly nutritious food. It may be repeated, on the recurrence of the febrile paroxysm, two, three, or four times in twenty-four hours, the patient remaining enveloped from half an hour to an hour. Mothers and nurses who have witnessed its efficacy are most earnest for its repetition. His plan of procedure is to immerse a night-gown, slit up at the front, in hot water (half a pint to a pint), pure or medicated with a drachm or two drachms of tincture of capsicum, or in the infusion of three or four pods; or in mustard-water, the clear, supernatant fluid from a tablespoonful of mustard to a pint of water; extending the gown over the feet by means of a towel immersed in the same fluid, both to be well wrung out and suddenly applied, and the patient quickly packed in two blankets previously placed on the adjoining sofa or bed; another blanket, or two pillows, or an eider-down quilt, covering all.

The medicated packing is preferable in the incipency, and at any other time to evoke the rash, and in cases of cerebral oppression, with pale skin, low pulse, and delirium.

¹ *Lancet*, November 14, 1874.

The auxiliary mode of treatment here defined is by no means intended to exclude the ordinary plan which every practitioner's experience has led him to select and to rely upon; but the author believes that if packing is judiciously incorporated with such reliable treatment, it will be the means of saving many lives that would otherwise be lost, and of diminishing the severity and duration of the sequelæ.

THE RATIONAL TREATMENT OF WHOOPING-COUGH.

Dr. A. v. Wolkenstein, of St. Petersburg, regarding this disease as a spasmodic cough, accompanied by a laryngeal and bronchial catarrh, and the spasmodic cough as occasioned by irritation of the superior laryngeal nerve and, by reflex action, of the accessory nerve, finds the indication for treatment in a remedy that will diminish the irritability of the superior laryngeal nerve.¹ For this purpose, experiments were made upon cats, rabbits, and dogs with various narcotic remedies, the following being injected into the rectum and subcutaneous cellular tissue: bromide of potassium, belladonna, atropine, chloroform, hyoscyamus, aconite, alcohol, morphine, cyanide of potassium, aqua amygdalarum amarum, calomel, corrosive sublimate, and chloral hydrate. By carefully measuring the time between the irritation and reflex action, the degree of normal reflex irritability in the animal was first established; it was then poisoned with one of the above drugs until all reflex action ceased. Tracheotomy was then performed with two wounds: one immediately below the cricoid cartilage; the other above, at the Adam's apple. The first wound opened the way to the posterior portion of the pharynx and to the false vocal cords; the second to the lower portion of the vocal cords and to Bidder's reflex zone. When the extremities of the superior laryngeal nerve were irritated with a feather or brush, there followed immediately a violent reflex cough, with closure of the glottis. After intoxication of the animals with some of the above remedies, these symptoms did not follow, and the employment of such should be regarded as the most rational treatment for whooping-cough.

The most efficient of these agents was morphine; belladonna produced no effect. Under the use of the latter, even to complete narcosis, the reflex irritability was not entirely removed. Chloroform, aconite, hyoscyamus, alcohol (ninety per cent.), calomel, and corrosive sublimate were tested, but none of them produced good results. Cyanide of potassium and aqua amygdalarum amarum did not work so well or so quickly as morphine. The best remedy, therefore, according to the author, is morphine; next to this come chloral hydrate and bromide of potassium. The effects of these remedies have been tried by him also in cases of the disease in question, and he proposes shortly to publish the results.

¹ Centralblatt für die medicinischen Wissenschaften, November 21, 1874.

ALLEN ON THE ANATOMY OF THE FACIAL REGION.¹

WE have to thank Dr. Allen for a valuable contribution to English anatomical literature. The book presents little that is original, but is none the less a valuable as well as an interesting treatise on the topographical anatomy of the face. The work is a collection "of jottings from lectures delivered to successive classes of dental students," but is as well or better fitted for the wants of the surgeon. It is very much to be desired that dentists should have some idea of the anatomy and physiology of the parts surrounding the organs with which it is their special province to deal, so that they may be aware of accidents likely to occur, and may know when to send a patient to a surgeon. It might be said that the range of the book is more extensive than it need be for merely dental requirements, but the error, if it be one, is on the right side. The style is easy and clear, the dryness of anatomical details being frequently relieved by accounts of striking cases of injury to the parts in question and of operations for their relief. In this respect the book reminds us of Hyrtl's *Topographical Anatomy*, to which the author frequently refers.

There is so much to praise that we were absolutely startled by the author's remarks on the action of the external pterygoid muscle. He writes, "The actions of the pterygoids are complicated. The massive internal pterygoid and the masseter act together in directly raising the lower jaw. But before it can do this, the condyloid process, which has been tilted out of the glenoid fossa, must be replaced. This is done by the external pterygoid; the larger slip operating on the jaw, the lesser one adjusting the capsule and the inter-articular disk. The external pterygoid holds to the tempero-maxillary articulation the same relation held by the popliteal muscle to the knee-joint." We were hardly prepared to see accepted views overthrown without even an allusion to their existence. The action of the external pterygoid is, if both be acting, to draw the condyles and inter-articular cartilages forward, a preparatory step towards opening the mouth; or, if one act alone, to draw these parts forward and inward. We cannot give up these views without some reason for so doing. We see no mention of the action of the digastric, which is of some importance in this relation. The remarks on the lower jaw are excellent, as is also the description of the oral cavity and pharynx. We reserve for another occasion the discussion of Dr. Allen's very interesting observations on the nomenclature of teeth.

T. D. Jr.

ANDERSON ON THE TREATMENT OF ECZEMA.

THE preceding edition of this book,² published in 1867, was so good that it could scarcely have been better at that time. Dr. Anderson had studied dermatology long enough in the schools of Vienna and Paris to recognize the merits

¹ *Studies on the Facial Region.* By HARRISON ALLEN, M. D., Professor of Anatomy and Surgery at the Philadelphia Dental College. Philadelphia: J. B. Lippincott & Co. 1875. Pages 117.

² *A Practical Treatise upon Eczema, including its Lichenous and Impetiginous Forms.* By DR. MCCALL ANDERSON, of Glasgow. Third edition, with illustrations. Pages 208. Philadelphia: Lindsay and Blakiston. 1875.

of a broader pathology than that taught at home, and his volume, dedicated to Hebra, was of great service in introducing into the British Islands the doctrines and practices of this teacher in their relations to this disease. It contained, moreover, the results of his own extensive observations upon the nature and etiology of eczema, and especially the most minute and careful details of treatment for all its various forms. Taken as a whole, it might fairly have been called the best chapter on eczema in English literature.

To improve upon it would seem, therefore, no easy task, even for its author, and so Dr. Anderson seems to have found it. The results of the recent investigations into the histology of the tissue-changes which make up the lesions characteristic of the various stages of the disease, as given in the works of Neumann, Biesiadecki, Rindfleisch, and others, with their illustrations, have been appropriately introduced as a separate chapter, and add to the completeness of the book. A few new points in the pathology and therapeutics of the affection also receive due attention, and have been illustrated by cases. In all its essential and characteristic features, however, it remains unchanged, an admirable book for practitioner and student.

The publishers' work is very handsomely done.

J. C. W.

TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY.¹

THIS pamphlet, of about one hundred and thirty pages, completes Volume I. of the transactions of the society. Following a List of Members and the Minutes of the Seventh Annual Meeting is a Report on the Progress of Otology, by Drs. C. H. Burnett and C. J. Blake. The Report is divided into three parts: I. Anatomy and Physiology; II. Pathology and Therapeutics; III. Reviews and Book Notices. Among the subjects noticed in the first part is an account of the researches made by Drs. Curschmann, Lucae, Cyon, and others regarding the functions of the semicircular canals; their conclusions seem to be that these canals preside over the sense of equilibrium, and that disturbances in the equilibrium of the body follow their injury. In Part II. it is stated that Dr. Phillimore, in a series of remarks upon the occurrence of hæmatoma, observes that he has never found this disease unaccompanied by disease of the brain or the membranes; and furthermore, with regard to its location in the auricle, that in none of the cases under his observation has the tumor included the posterior surface of the pinna or the lobule. A paper by Dr. J. Orne Green on Mastoid Inflammation, which was published in the *JOURNAL* for January 22, 1874, is printed in the report.

Dr. C. J. Blake communicates a paper on Perforations of the Membrane of Shrapnell in Purulent Inflammation of the Middle Ear. This lesion is stated to be somewhat rare, owing to the position and anatomical relations of this portion of the dividing wall between the middle and the outer ear, as well as to

¹ *Transactions of the American Otological Society. Seventh Annual Meeting, Newport, R. I., July 15, 1874. For sale by James Campbell.*

the laxity of the membrane. When the destruction of the membrana tympani affords a free outlet for the purulent secretion which may form in inflammation of the middle ear, the region of the membrane of Shrapnell is commonly left intact. But when the membrana tympani, thickened by previous disease, offers a stubborn resistance to the effects of the inflammatory and suppurative process within, or when the perforation which finally occurs is too small to afford an adequate opening for the escape of the discharge, perforation of the membrane of Shrapnell may occur.

Dr. Henry D. Noyes reports a case of Irritation of the Chorda Tympani, with Paralysis of the Facial. The patient, a physician, gives in his own words a clear statement of his symptoms before coming under the care of Dr. Noyes. It is stated that cases of persistent irritation of the chorda tympani are not often recorded, and the facts of the case reported are valuable clinically and physiologically, confirming as they do the results of experiments on animals.

In a paper on Neuralgia in and about the Ear, Dr. J. Orne Green calls attention to a variety of reflex neuralgia of the tympanic plexus, the result of disease of the larynx. He mentions that Dr. S. W. Langmaid has read a paper on several cases of epithelioma of the larynx, in some of which an excruciating neuralgia of the ear was the prominent symptom; this continued till death, and could not be relieved. Dr. Green has seen neuralgia of a like character present in a case of well-marked laryngeal phthisis. No disease of the ear could be discovered.

Other papers on subjects connected with otology, written by Drs. Buck, Pomeroy, and Webster, of New York; Dr. Mathewson, of Brooklyn; and Dr. Burnett, of Philadelphia, are published in this valuable report.

CHARLES G. PUTNAM, M. D.

THIS honored physician, who died suddenly on Friday last, the 5th of February, was born in Salem in the year 1805. He took his first degree at Harvard College in 1824, and that of Doctor of Medicine at the same institution in 1827. After practising a few years in Salem he removed to Boston, where he married the eldest daughter of the late Dr. James Jackson. His practice was more especially in obstetrics and the diseases of women, on which subjects he made occasional communications to the profession through the journals. With the exception of these and of a translation of the treatise of Louis on Blood-letting, he did nothing to make himself very widely known. But the profession of his native State was not unacquainted with his merits and standing, and in 1869 conferred the highest honor in their gift upon him by choosing him President of the Massachusetts Medical Society.

There are men enough whose names are famous, so that when they are seen in the list of the dead all the world recognizes them, and yet who are not much missed by any immediate circle. And there are other men not much known beyond the limits of the community in which they live, whose loss falls heavily

on many hearts, whose eulogy, however brief, comes mingled with regrets from the lips of all who knew them and speaks only what they feel. The good clergyman who has been the teacher and adviser and consoler of his little flock, — the good physician who has done all that his skill and devotion could do for his trusting patients, often stand in this relation to the many and the few, to the world at large, on the one hand, and on the other to that lesser world which encompasses every man and in which he is held at his true value for his genuine human qualities.

Such a man was Dr. Putnam. Except for the public honor conferred upon him unsought, his life was passed remote from general observation, in the noiseless and inconspicuous discharge of his duties as a physician. Grave in aspect, cheerful in temperament, gentle, quiet, kindly, sympathetic, nature marked him for the calling he had chosen. Good judgment, which in a physician is worth all the showy gifts that make men shine in other walks of life, was his leading characteristic. He gave himself to his profession without reserve, fulfilling the one condition essential to the best kind of success, and thus acquired the confidence which is reposed only in the practitioner who lives entirely for his sacred duties.

Dr. Putnam's marriage brought him naturally into close professional relations with Dr. James Jackson. All the experience of that true master of the healing art became familiar to his son-in-law in their constant intercourse. To be with Dr. Jackson was an education such as many who cross the seas and come home full of the latest novelties of science never get. One may study the inside of a clock for a long time, and lay it down without being able to tell what is the hour of day. So there is a great deal of knowledge relating to the internal bodily mechanism, curious, interesting, now and then valuable, but which, so far as the well being of any given patient is concerned, is quite insignificant as compared with that bedside clairvoyance, often found in sagacious practitioners whose scientific acquirements are somewhat defective, which sees in the patient's attitude, expression, voice, movements, and all outward signs, the state of those vital forces which it is the physician's chief business to support, to restrain, to modify, as he watches them from day to day or from hour to hour. Dr. Putnam, like his revered master, was a man whose place was at the bedside, rather than in any of the laboratories of unapplied science, where the special qualities that make the practitioner are less called for and less appreciated.

We lament the loss of those who study science for its own sake. But we feel a deeper personal grief at the loss of those who use their knowledge directly for our need; who stand by us and ours in the time of suffering and peril, and give themselves, — all their mind and heart and strength, — to our service as long as our necessity requires.

One of these best-beloved friends has just left us. His merits were far beyond his pretensions, and the universal esteem in which he was held was their true measure. He has filled the full term of human life with days of modest and unheralded usefulness; none more free from blame, none more deserving of honorable remembrance. His life has helped, unconsciously to himself, to form the character of the profession in the city where he practised. He did

not strive nor cry, nor did any man hear his voice in the streets; but as he loved the sweet accords of music, so he loved the placid harmonies of life and shamed its discordant clamors, when such arose, by his peaceful equanimity.

His life has rounded itself to a perfect close. He has bequeathed his name and character to children whose promise has rewarded all his hopes. Summoned, not without timely, but gentle warning, he has been released from the growing burdens of age, and the threatened prospect of years when he might have to say there is no pleasure in them, as quietly as the leaf falls when the season is ended.

THE BOSTON DISPENSARY.

A PERUSAL of the seventy-eighth annual report of this institution will show the vast increase in the amount of work now accomplished by its medical staff. During the past year nearly forty thousand patients have received treatment, the greater part of the work being done at the central office. The limited accommodations of the present building render it totally unfit to accommodate the large numbers of patients who frequent it daily. The waiting-rooms and halls are filled to overflowing. The superintendent has urged the necessity of a new building, and this demand is fully indorsed by the executive committee. This charity has now for three quarters of a century faithfully performed its duties, and is conducted in a most systematic and careful manner. If the present antiquated structure were replaced by a new one arranged expressly for the needs of such an institution, the comfort of the sick poor would be greatly increased, and the same work might be performed at much less sacrifice of time and labor.

THE AMERICAN MEDICAL ASSOCIATION.

As the action of the Suffolk District Medical Society in regard to sending delegates to the next meeting of the American Medical Association shows, the discussions carried on in our columns during December last have not been fruitless, and the society, forgetting past differences, is disposed to make one last determined effort to aid in a commendable reform. Though not very sanguine of success, we most earnestly desire the improvement of the association, and, to promote it, we now call on the societies of this and other States to assist us by sending large bodies of carefully picked delegates. If this is done, and continued in future years, success is nearly certain. There are, we think, but two dangers. The first suggests Hotspur's answer to Glendower's boast that he could "call spirits from the vasty deep:" "Why, so can I, or so can any man; but will they come when you do call for them?" Will these delegates go? The second danger is, in fact, a consequence of the first. As far as we know, the association itself has no desire to be reformed, and we have our misgivings as to the reception a small number of reformers might meet with. What

is needed is a general rising of the best men throughout the country; should this occur, and we hope it may, the Association would at once become a source of pride to all of us. All traces of political antagonism have, we believe, disappeared from the profession of both sides in our late war, but we are for the most part strangers to our colleagues in the South. The meetings of the association would give opportunities for the renewal of old and the formation of new friendships. The Transactions, embodying the best labors from all parts of the country, could not fail to be of great value. Let us hope that this may come to pass. If, on the other hand, it should unfortunately be the case that the best men from the entire country will not take the trouble to attend, it will be a proof that they do not think the Association worth preserving, and it will continue its present course from bad to worse.

MEDICAL EDUCATION IN THE UNITED STATES.

ALTHOUGH we are not of those who look with complacent satisfaction on the present state of medical education in the United States, we are hardly inclined to sympathize with the editor of the London *Lancet* in the gloomy and somewhat obscure view which he takes of the situation. Our contemporary has confounded two questions: state legislation for the regulation of the practice of medicine, and the standard of education required by our medical schools.

In regard to the former, it is undoubtedly true that we are lamentably deficient in laws which control even in a measure the practice of a class of men who impose upon a credulous public with absolute freedom; indeed, no one can deny that we are fairly overrun with quacks *et id omne genus*. It is not to be wondered at, therefore, that the operations of these individuals have under such favorable auspices been extended to distant fields, and that we have heard so much of late years of the "bogus diploma." This traffic has, however, been pretty thoroughly suppressed, and, moreover, it would hardly be fairer to father this particular class of swindlers on the American medical profession, than for us to hold the English aristocracy responsible for the doings of many an "English lord" who has figured in our courts.

In regard to medical education, our critic says, "there must be much admirable medical teaching in the United States," but mentions a class of universities which he fears is large, and of which he says the University of California is a type. The *San Francisco Newsletter* is his authority for stating that three of the professors of this university are without diplomas, and, moreover, that this is a State university. We confess to being somewhat startled by this announcement, but when we learn in the same article that Yale University is in Massachusetts, and that the Philadelphia University (the notorious nursery of bogus degrees) is "an admirable school from which reliable diplomas emanate," we still entertain a hope that such a lamentable condition of affairs as is represented does not exist in this country. He justly says, however, that the profession in America is deeply interested in the question of medical education, and we wish we could add also "in the creation of authorities for deciding on the fitness of men to take charge of the life and limbs of the people."

THE ANTIPHLOGISTIC ACTION OF CARBOLIC ACID.

PROFESSOR HUETER, of Greifswald, in a report to the third Congress of the German Surgical Society read a paper on the antiphlogistic action of parenchymatous injections of carbolic acid. He has used this treatment with success in white swelling of the joints, in subacute inflammation of the lymphatic glands, in acute phlegmonous inflammations and in traumatic erysipelas. The injection-fluid consists of a two per cent. watery solution of carbolic acid. This strength may, however, be increased. Two grammes may be injected at one time.

Hueter has also employed this treatment in commencing inflammation of the bones, before suppuration has begun. He recommends the injection of one or two drachms of the mixture into the medullary cavity, the softened cortical substance presenting no material resistance to the point of the needle. This same solution he has employed for the radical cure of hydrocele, injecting about seven grammes into the tunica vaginalis. Here, as in the other cases, the carbolic acid injections show their anæsthetic action, very little pain being caused by the process and no pain following it. In applying this method of treatment to tumors he had no success in the case of lipomas and sarcomata. He succeeded in reducing the size of soft fibromata and myxomata; scirrhus nodules became smaller and painless, and epithelial ulcers were changed into healthy, granulating surfaces.

ETHER VERSUS CHLOROFORM.

THE ether revival is again being agitated in London. The *Medical Press and Circular*, in speaking of a death from chloroform reported in the *Canada Medical Record*, says, —

“When we read the account of this chloroform accident, which occurs nearly at the same time as the two deaths in London, one at the Eye Hospital in Moorfields, the other at the Royal Free Hospital, we may well ask why ether is not employed instead of chloroform. At the Royal London Ophthalmic Hospital both Mr. Critchett and Mr. Couper are in favor of ether *versus* chloroform. We really maintain that it is high time to ask why poor people's lives are to be sacrificed to routine.”

The *British Medical Journal* also joins in the cry in the following strain:

“The crusade against ‘chloroform-deaths’ which we have carried on during the last two years has had the effect of bringing very prominently into notice the superior safety of ether, and, for short operations, of nitrous oxide. We had, indeed, the satisfaction of witnessing an ‘ether-revival.’ The ether revival has, however, not extended either so widely or so deeply as it should have done, or as it will, we believe, yet do. It is, indeed, necessary to hit the same nail on the head many times and oft before it is well driven in. We have had the pain of chronicling recently two fatal cases of death from chloroform and from bichloride of methylene, which we believe to be a yet more noxious agent.

We observe the record of two further chloroform-deaths abroad ; and next week we shall republish an analysis of the ether discussion which was last year carried on for many months in our columns, as it will, we believe, be desirable to renew the influence of the articles and letters which we then published. We are very glad to see that some of our medical contemporaries are now disposed to give their aid in the matter, and we hope that a chloroform discussion may be raised at some of the principal societies in London and elsewhere."

MEDICINE IN YE OLDEN TIME.

In the early days of the Massachusetts Colony, physicians were scarce, and they frequently united their calling with that of some other profession. Their opportunities for acquiring medical knowledge were very limited, though the following law would indicate that they sometimes practiced dissections. The statute was passed in 1641, and is found in the Laws of Massachusetts, printed at Cambridge in 1660. At that time there were fifteen offenses punishable in this colony with death, and it is probable that examinations were occasionally made post mortem, even if they did not go into minute details.

"It is ordered by this Court. That no man condemned to dye, shall be put to death, within four dayes next after his condemnation, unles the Court see special cause to the contrary, or in case of Martial law ; nor shall the body of any man so put to death, be unburied twelve hours, unles it be in case of anatomic."

The following law regulating ferries, from the same volume, shows a marked contrast between the means of travel employed by the public then and now. In those early days there were but very few bridges, and the doctors, like everybody else, were dependent on the boats.

"And it is further ordered, That all persons shall be received into such *ferry boats* according to their coming, first or last, onely all publick persons, or such as goe upon publick or urgent occasions, as *Physitians, Chirurgeons* and *Midwives*, and such other as are called to women's labours, such shal be transported with the first."

MEDICAL NOTES.

— At the meeting of the Suffolk District Medical Society held January 30, the committee appointed to consider the expediency of sending delegates to the next meeting of the American Medical Association at Louisville in May, 1875, and also to nominate delegates for the ballot of the society on February 27th, offered the following :—

Voted, That it is expedient to send delegates to the next meeting of the American Medical Association.

Voted, That the following Fellows be nominated as delegates to the meeting :
S. L. Abbott, H. H. A. Beach, G. H. Bixby, Buckminster Brown, F. H.

Brown, C. E. Buckingham, E. H. Clarke, Edward Cowles, Samuel H. Durgin, Thomas Dwight, Jr., Calvin Ellis, R. H. Fitz, Norton Folsom, S. A. Green, D. H. Hayden, J. T. Heard, John Homans, W. Ingalls, G. H. Lyman, F. Minot, W. W. Morland, C. P. Putnam, W. L. Richardson, G. C. Shattuck, D. H. Storer, C. W. Swan, T. Waterman, J. C. White, Edward Wigglesworth, Jr.

The report was unanimously adopted.

— In the *Paris Journal de Médecine et de Chirurgie* for December is reported a case under the care of M. Fleury, read by him before the Surgical Society of Paris, in which passing a catheter caused peritonitis, which was followed by death. The patient, a young girl, had been affected with retention of urine for a year. She had menstruated for two years. M. Fleury passed a catheter with every care, but could not pass it in more than four centimetres, and even this caused much pain. Nothing particular could be detected on digital examination. Very acute pain in the abdomen was experienced on the following day, and peritonitis supervening, the patient died on the eighth day. At the autopsy no trace of a bladder could be detected. The ureters were found to open into a *cul-de-sac* formed by the urethra. The retention of urine was also found to be congenital.

— In the *Practitioner*, Dr. Anton Ewald describes a case where vomiting of much acid fluid occurred on alternate days, with the expulsion, from the mouth and anus, of great quantities of combustible gas, which burned with a yellow flame when lighted. The inflammable nature of the gas was first discovered by the patient, who, when lighting a cigar, found to his surprise that his eructations took fire. Chemical analysis showed the gaseous eructations to consist of a mixture of carbonic acid, hydrogen, oxygen, nitrogen, marsh gas, and a little olefiant gas. On examining the contents of the stomach it was found that lactic acid and butyric acid fermentation had been going on in the stomach at the same time as alcoholic fermentation.

— The *Saint Louis Medical Journal* states that the first annual commencement of the Saint Louis School of Midwives was held Friday evening, the 18th ult., at the school, 835 South Eighth Street. After examination before the Board of Advisors and a number of prominent German physicians, the diploma of the school was awarded to the fifteen members of the German class of 1874.

— The valuable Astley Cooper triennial prize amounting to three hundred guineas, has been awarded to Dr. D. J. Hamilton, for his thesis on "Injuries and Diseases of the Spinal Cord." Dr. Hamilton is a graduate of the University of Edinburgh, and received his training in practology in the physiological laboratory of the university.

— Dr. Mary Putnam-Jacobi has been elected delegate to the New York State society from one of the local societies, and it is intended to send her as a delegate to the next meeting of the American Medical Association.

— The French National Assembly has sanctioned the creation of two new faculties of medicine, one at Lyons, the other at Bordeaux. The same privilege was nearly accorded to Lille, but was finally refused in deference to the clerical party, who are there organizing a faculty of medicine in harmony with the new law on the liberty of university teaching.

SURGICAL OPERATIONS AT THE MASSACHUSETTS GENERAL HOSPITAL.

[SERVICE OF DRS. BIGELOW AND CABOT.]

OPERATIONS were performed under ether in the following cases during the week ending January 23 :—

1. Deep-seated abscess in posterior femoral region.
2. Vesico-vaginal fistula.
3. Ruptured perineum.
4. Tumor of neck.
5. Tumor of shoulder.
6. Tumor of eyelid.

1. *Deep-Seated Abscess of Thigh.*—A large abscess occurring in a man twenty-five years old had originated in a fall one month ago. Since that time, the patient had experienced deep-seated pain behind the great trochanter, with some tenderness of late; the parts were slightly indurated. Under ether, deep fluctuation was detected in this region. Dr. Bigelow withdrew by the aspirator about sixteen ounces of dark-colored pus from the neighborhood of the hip-joint. The patient was able to move the joint so freely as to render it improbable that this was in any way diseased.

4. *Tumor of Neck.*—This proved to be an interesting case. A man, twenty-three years of age, entered the hospital with enlargement of the whole anterior aspect of the neck. It was of one year's duration, and its increase had of late been rapid. Upon examination, it was at first doubtful whether this uniformly diffused mass was connected with the thyroid or with the absorbent glands. One or two lobes, however, which did not seem to rise with the larynx in deglutition, rendered it less probable that the disease was goitre. Besides this, there were several smaller masses attached to the lower and anterior aspect of the tumor. If goitrous, it belonged to that exceptional form of enlargement characterized by lobes hanging from the surface of the mass and not imbedded in it. On the other hand, the obscure and diffused outline of the tumor made it impossible to say that the growth was of leukæmic, lymphomatous, or lympho-sarcomatous origin. Examination of the blood showed only a doubtful increase of the white corpuscles. The patient was eager for some operation, and it was determined by Dr. Bigelow to explore a superficial ovoid mass, of the size of a pullet's egg, lying in the upper and anterior triangle of the neck, adjoining the sterno-cleido-mastoid muscle.

The patient was etherized as usual by the assistants in the etherizing room. During this process it was twice remarked that he was breathing badly, with laryngeal stertor, and it was decided to bring him into the theatre imperfectly etherized rather than to continue where he was. Placed in the operating chair, he was breathing with a croupy stertor which the usual expedients failed to relieve. The trachea was brought into the best position by extending the neck in a straight line; the lips were held open and the finger introduced by the side of the cheek to admit air over the base of the tongue. According to all rule, the laryngeal spasm should now have relaxed, the patient drawing a full breath; but the contrary was the case, and Dr. Bigelow directed that the tracheotomy instruments be placed in readiness. The tongue was now drawn forward with double-hooked forceps, but without avail; the pulse weakened, the breathing became shorter, and at last ceased altogether. The trachea

could not be felt through the thickened tissues, but a free incision was made on the median line, disclosing large veins, which were avoided. The sterno-hyoid and thyroid muscles were rapidly separated, exposing an enormous plexus of distended and varicose veins in front of the trachea, and in fact surrounding it; but no time could be lost, the veins were rapidly torn asunder, the trachea exposed, incised, and a tube inserted. An abundant hæmorrhage occurred at this moment, from which it was impossible to protect the trachea. The tube was seemingly clear, and yet the patient could not breathe; it was withdrawn, examined, and reëntered to no purpose. Two minutes or more had elapsed since the patient had breathed, and the obstruction was evidently far out of reach. Just before this, Dr. Bigelow had called for a catheter, which was now brought and passed down the trachea into the chest, to a point below the obstruction. Air suddenly blown through this tube expelled the coagula above it and cleared the trachea. This was the key to the recovery; without it, the patient must have died; in fact it is difficult to conceive any other way in which the coagula could have been removed. Soon after, the patient made a slight effort to breathe, which, aided by artificial respiration for a few minutes, reëstablished this function. The vessels were tied, the operation was abandoned, and the patient put to bed and carefully watched.

Two days after, in the momentary absence of his attendant, the patient got up, and in so doing displaced the tracheotomy tube, which was deep in the thickened tissues; his breathing was arrested, and he was discovered insensible. He was revived, however, by the inflation of the lungs through the elastic catheter. In the middle of the night, twelve hours later, he had an attack of difficult breathing, and though he rallied and afterwards did well so far as respiration was concerned, he gradually sank, and died about nine hours afterward. His death was not connected with any difficulty of respiration, but with inherent prostration of the system, doubtless resulting from his disease. Although no autopsy was allowed, a microscopic examination of several of the tumors after death revealed an active and malignant form of lympho-sarcoma, which had very probably affected some of the viscera, or otherwise reduced his vitality.

This unusual and instructive case suggests important considerations, in respect to both anæsthesia and to resuscitation. In regard to anæsthesia, it may be stated that it is an almost unprecedented circumstance that a patient exhibiting laryngeal stertor, which is known to result from spasm of the vocal cords, should not relax these cords and spontaneously take a full inspiration as soon as the system peremptorily feels the need of air. In fact, it was remarked by Dr. Bigelow, while the patient was exhibiting these symptoms, that he would soon breathe freely. The result proved the contrary, and it has been in this connection a matter of great interest to have learned, since the patient's death, that during the last six months he had had several attacks of spontaneously obstructed respiration, accompanied with lividity and lasting for a considerable time. This fact points to an explanation of the above phenomena, in a probable derangement of the nervous mechanism connected with the existence of the sarcomatous tumors; perhaps involving the recurrent laryngeal nerves and inducing, as in certain cases of aortic aneurism, irritation of the glottis. As an expedient for the resuscitation of an asphyxiated patient, especially if

the trachea be obstructed by coagula, mucus, or even water, the introduction of an elastic catheter deep into the chest, to a point below the seat of obstruction, must be considered of great value. This may be accomplished either through the mouth and epiglottis or by a tracheal incision. The hospital records of 1867 show that a patient asphyxiated with blood during the excision of an upper-jaw was brought to life by Dr. Bigelow, who inserted a catheter, first through the epiglottis and then through the neck. Air blown through a tube in this position not only inflates the lungs but expels the clots above it. It would seem proper that with apparatus for the resuscitation of drowned persons such tubes should be kept, together with knives and double hooks for the ready performance of tracheotomy, for this, in the collapsed condition of the veins in the adult, is a very simple and innocuous operation. A tube should be introduced not only just beyond the vocal cords, like the modern German contrivance, but deep into the lungs; the inflation would readily expel the water from the trachea and bronchi.

H. H. A. BEACH, M. D., Surgeon to Out-Patients.

SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. CHEEVER, THORNDIKE, AND WADSWORTH.]

THE following are the principal operations performed during the week ending Friday, January 22, 1875:—

1. Strangulated umbilical hernia. 2. Extroversion of the bladder. 3. Extraction of bullet from the orbit. 4. Excision of hip. 5. Tumor of face. 6. Stricture of œsophagus. 7. Excision of os calcis. 8. Double hydrocele. 9. Hydrocele of the cord. 10. Fistula in ano. 11. Caries of tarsus. 12. Necrosis of hard palate. 13. Ingrowing toe-nail. 14. Tonsillotomy. 15. Tattooing the cornea.

1. *Strangulated Umbilical Hernia; Herniotomy; Death.*—A widow, sixty-four years old, had had an umbilical hernia ten or eleven years. It had been reducible till a year and a half ago. She never wore a truss, but supported the tumor with a bandage. She weighed two hundred and fifty pounds. About thirty hours before entering the hospital she was attacked with nausea and vomiting, soon after going to stool. These symptoms, with pain, persisted till the time of the operation. There was a large, oblong, pendulous tumor, just below the umbilicus, nineteen inches in circumference. The upper part of the tumor was tympanitic; the lower, dull and indistinctly fluctuating. The skin was red, œdematous, and at the lower part threatened ulceration. There was a well-marked neck to the tumor. The bowels had not moved since the attack. Although the great danger of operating on an umbilical hernia was recognized, surgical interference seemed preferable to leaving the strangulation unrelieved. The patient was etherized, and an ounce of bloody serum was drawn off with a small trocar. No change occurring in the tumor, Dr. Cheever then performed herniotomy. An incision was made on the median line, six inches long, over the neck and upper part of the tumor. After going through a layer of fat two inches thick, the sac was reached and freely opened. A little serum

came out. The sac contained a large mass of omentum, and a piece of the small intestine, six inches long. The omentum was not inflamed nor discolored, but was firmly adherent to the sac at its lower part. The intestine occupied the upper and back part of the tumor, and was very dark. The two points of constriction on the gut were plainly visible, and the difference in the appearance of the strangulated and non-strangulated portions was very marked. The orifice in the abdominal wall was three fourths of an inch in diameter. This was enlarged, the intestine returned to its proper place, and the omentum allowed to remain in the sac, as the adhesions could not be broken up. The external wound was closed with silk sutures, and a compress and wide bandage applied.

The patient died in three days. After death the wound was reopened, and the intestines, in the vicinity of the strangulation, were found covered with lymph, and greatly distended by gas. The strangulated loop had recovered its color and circulation, and there were no signs of gangrene.

2. *Extroversion of the Bladder.* — The patient is a boy, six months old, well developed and healthy. The opening through the abdominal walls is an inch above the pubes on the median line, and is about half an inch in diameter. When the child cries or strains, there protrudes from this aperture a bright red, velvety tumor, nearly an inch in diameter. A catheter passed into the bladder through the urethra finds an exit through the abdominal opening, and about half of the urine also comes out of the same opening. There is no umbilicus, nor scar indicating the remains of one. The penis is normal, the urethra terminates normally, without hypospadias, and both testicles are in the scrotum. The folds of skin in the groin usually seen in these cases are full and large. There is no hernia, nor any other deformity, except the one above described.

Dr. Cheever dissected up the skin from the entire circumference of the orifice, and joined the freshened edges with six silver sutures on the median line. The opening was thus effectually closed.

3. *Extraction of a Bullet from the Orbit.* — A man sixty-three years of age shot himself in the head with a pistol. The ball entered the right temporal fossa, an inch behind the external angular process of the frontal bone, passed across the right orbit, through the nasal cavity, and lodged deep in the left orbit. The dura mater behind the right orbit was exposed but not lacerated. The nasal bones were shattered. Both eyes protruded and the man was totally blind, though at no time was he unconscious. The right eye had large subconjunctival ecchymoses on the globe.

Dr. Cheever made a horizontal incision through the base of the left lower eyelid, and passing beneath the globe of the eye to the back part of the orbit, the ball was found and removed. It was deeply furrowed, and weighed one hundred and thirty-three grains. The sight returned to the left eye after the operation, and the pupil became normal. The right eye was disorganized.

4. *Excision of the Hip.* — A boy thirteen years old received an injury to the right hip six months ago, and has been lame ever since. There was a large abscess over the trochanter, which communicated with the joint behind. There was partial ankylosis of the femur, the nates was flattened, the limb was a little elongated, and indistinct grating in the joint could be felt on rotating the leg.

The hip was excised by Dr. Thorndike. A V-shaped incision was made over the joint, the triangular flap turned up, and the capsular ligament and the structures attached to the trochanters were divided. It was found necessary to divide the bone just below the trochanters. The head and upper part of the neck of the femur were completely eroded, and there was a tubercular deposit in the medullary canal, extending nearly to the point of section. There were a few small patches of caries in the acetabulum, but not extensive enough to require any operative procedures.

5. *Tumor of the Face.*—Last spring the patient, a domestic, sixty years of age, noticed a small tumor on the left side of her face. It grew rapidly and was very painful till October, when it was removed by raising a flap from the cheek and scooping out the growth. Soon the disease reappeared, and the pain became so intense that the infra-orbital nerve was divided, subcutaneously, with temporary relief.

She entered the City Hospital about three weeks ago, with a tumor under the left cheek. The growth filled the antrum and was encroaching upon the orbit, so that the eye was very prominent and totally blind, and the lids were everted. The nares and mouth were also invaded by the disease. Externally the growth was firm, immovable, inclined to soften and break down in the centre. The pain was severe, and the patient begged that something might be done to relieve her. She was etherized, and an incision in the cheek gave exit to a considerable quantity of pus and blood. After a thorough examination Dr. Cheever decided to try to remove the growth. A semicircular incision was made from just outside the angle of the mouth, upward and backward to the external auditory meatus. The flap was quickly raised, the hæmorrhage being controlled by pressure. The anterior wall of the antrum and a portion of the floor of the orbit were absorbed, and the sight of the left eye was destroyed. The growth was removed mainly by tearing with the fingers, the muscles and fascia being divided with the knife, and the cavity of the mouth not being opened at all. The tumor came out quite clean and entire, and was three inches long by four wide. It was lobulated, juicy, and broken down in the centre. The microscope showed myriads of small round cells similar to those seen in a round-cell sarcoma. The wound was plugged with sponge dipped in ferric alum, and partially closed with sutures. The patient bore the operation remarkably well.

GEO. W. GAY, M. D.

THE "ANÆMIC" SOUFFLE, AND FATTY DEGENERATION OF THE HEART.

MESSRS. EDITORS,—The perusal of Dr. Chadwick's report of a case of immediate transfusion, in the JOURNAL of January 14th, leads me to say a word in regard to the so-called anæmic souffle. Very few auscultators at the present time would, I think, attribute this murmur directly to an impoverished condition of the blood, or any other one condition in all cases (hence the terms inorganic and dynamic murmur); yet perhaps few are aware that fatty degen-

eration of the heart (in suggesting which Dr. Chadwick is entitled to all the honor of originality) has been recognized as one of the causes. P. Niemeyer¹ gives partial fatty degeneration of the papillary muscles as one of the causes of the *inorganic* murmur, on the authority of Friedreich; and Guttman² with reference to this source of the murmur, refers to the experiments of Perl quoted by Dr. Chadwick.

It is certainly well for us to appreciate that a systolic murmur, which we cannot attribute to valvular lesion, may be due to one of several causes, some of grave and some of slight import, and that neither of the terms *anæmic*, *transitory*, *inorganic*, *dynamic*, is strictly applicable to all cases.

Yours respectfully,

F. I. KNIGHT.

BOSTON, January 26, 1875.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending February 6, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State:—

In Berkshire: influenza, bronchitis, pneumonia, and measles. One physician reports a case of cerebro-spinal meningitis under his observation.

In the Connecticut Valley: bronchitis, influenza, pneumonia, and rheumatism. Whooping-cough and diphtheria have subsided.

In the Midland section: influenza, bronchitis, pneumonia, and rheumatism. Small-pox is in the Blackstone Valley. Measles, croup, and scarlatina are less prevalent.

In Middlesex and Essex: influenza, bronchitis, pneumonia, rheumatism, scarlatina, and whooping-cough. Diphtheria is prevalent in Wakefield. In Lawrence, the mortality last week was the greatest that ever occurred in a single week in that city.

In the Metropolitan section: bronchitis, influenza, measles, pneumonia, and rheumatism. Croup, diphtheria, scarlatina, and whooping-cough are declining. The prevalence of influenza has become very general.

In the Southeastern sections and on the Cape: bronchitis, influenza, pneumonia, rheumatism, scarlatina, and whooping-cough. The last three diseases have increased in prevalence.

Among the Islands: bronchitis and influenza are the prevailing diseases.

Influenza may be said to be epidemic in all parts of the State, while bronchitis and pneumonia prevail very generally. The diseases of the respiratory organs have greatly increased in prevalence the past week, coincidently with the variable weather. Croup and diphtheria, however, have declined somewhat. Measles and scarlatina are as at the last report.

F. W. DRAPER, M. D., Registrar.

¹ Handbuch der theoretischen und klinischen Percussion und Auscultation. Erlangen. 1870.

² Lehrbuch der klinischen Untersuchungs-Methoden. Berlin, 1874.

BOOKS AND PAMPHLETS RECEIVED.

Studies in the Facial Region. By Harrison Allen, M. D. J. B. Lippincott and Co. (Reprinted from the Dental Cosmos.)

Letter to a Committee of Citizens on the proposed Schuylkill Drove-Yard and Abattoir. By John H. Rauch, M. D. Philadelphia. 1874.

Nineteenth Annual Report upon the Births, Marriages, and Deaths in the City of Providence for the Year 1873. By Edwin M. Snow, M. D.

Transactions of the American Otological Society. Seventh Annual Meeting, Newport, R. I., July 15, 1874. (For sale by James Campbell.)

Experimentation on Animals as a Means of Knowledge in Physiology, Pathology, and Practical Medicine. By J. C. Dalton, M. D.

A Practical Treatise on Eczema, including its Lichenous and Impetiginous Forms. By Dr. McCall Anderson. Third Edition, With Illustrations. Philadelphia: Lindsay and Blakiston. 1875.

Report of the Medical Commission upon the Sanitary Qualities of the Sudbury, Mystic, Shawshine, and Charles River Waters. 1874.

Nineteenth Annual Report of the Trustees of the State Lunatic Hospital at Northampton. 1874.

Examination of the Urine. By George B. Fowler, M. D. New York: D. Appleton & Co. 1874.

Report of the Eastern Lunatic Asylum of Virginia for the Year ending September 30, 1874.

Thirty-Second Report to the Legislature of Massachusetts relating to the Registry and Return of Births, Marriages, and Deaths in the Commonwealth for the Year ending December 31, 1873.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING JANUARY 30, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
Philadelphia	775,000	390	26
Brooklyn	450,000	239	28
Boston	350,000	184	27
Providence	100,000	39	20
Worcester	50,000	24	25
Lowell	50,000	17	18
Cambridge	44,000	23	27
Fall River	34,200	21	32
Lawrence	33,000	14	22
Springfield	33,000	8	13
Lynn	28,000	11	20
Salem	26,000	12	24



